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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,136	03/02/2004	Jacky Seiller	S1022.81126US00	3182
23628 7590 02/18/2010 WOLF GREENFIELD & SACKS, P.C. 600 ATLANTIC AVENUE BOSTON, MA 02210-2206				
EXAMINER				
MITCHELL, JAMES M				
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2813				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/791,136

Applicant(s)

SEILLER ET AL.

Examiner

JAMES M. MITCHELL

Art Unit

2813

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/CD)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This office action is in response to applicant's amendment filed October 15, 2009.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Anand¹ (U.S. 2001/0013657).

4. Anand (e.g. Fig. 3, 4) discloses:

(cl. 1) An integrated circuit comprising one or several metallization levels, metal conductive strips (e.g. narrow portion 21 of multiple pads in chip) and metal contact pads (e.g. rectangular portion of 21) being formed on a last metallization level, wherein the pads have a first length (e.g. vertical rectangular perimeter 21; Fig. 3), a first width (e.g. horizontal perimeter 21; Fig.3) and a first thickness (e.g. vertical 21; Fig. 4); the first length and width being greater than first thickness (e.g. length & Width in 3 larger than thickness in Fig. 4); the last level being covered with a passivation layer (22) in which are formed openings above the contact pads (e.g. 23), with the strip having a second thickness (e.g. vertical portion 21) along same direction as first thickness; pad portion at least not covered with passivation smaller than the second

thickness (e.g. dishing; Par. 0029) prior to application of an external contact to the metal contact pad (e.g. Par. 0030);

(cl. 4) the last metallization level is formed on an insulating layer²¹ on, 26,18 etc), each contact pad being formed of a conductive layer covering an insulating portion laid on the insulating layer.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1, 3, 4 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakihama et al. (U.S. 6,522,021) in combination with Wu et al. (U.S. 6,287,950).

¹ Note there are many references that alternatively could have been used to anticipate or make obvious

8. Sakihama (e.g. Fig. 6a,b) discloses:

(cl. 1) An integrated circuit comprising one or several metallization levels, metal conductive strips (e.g. 200d. of multiple pads as see Fig. 1) and metal contact pads (200a, b) being formed on a last metallization level, wherein the pads have a first length (e.g. horizontal perimeter 200b; Fig. 6a), a first width (e.g. vertical perimeter 200b; Fig. 6a) and a first thickness (e.g. vertical 200a; Fig. 6b); the first length and width being greater than first thickness (e.g. length & Width in 6a larger than thickness in Fig. 6b); the last level being covered with a passivation layer (50) in which are formed openings above the contact pads (e.g. space in 50 taken up by 2), with the strip having a second thickness (e.g. vertical portion 200d) along same direction as first thickness;

(cl. 4) the last metallization level is formed on an insulating layer (200a on 60), each contact pad being formed of a conductive layer covering an insulating portion laid on the insulating layer.

9. Sakihama does not disclose its pad portion at least not covered with passivation smaller than the second thickness prior to application of an external contact to the metal contact pad.

10. Wu teaches forming trenches (215) in its pad (210; Fig. 2E) prior to application of an external contact (250) to the metal contact pad.

11. It would have been obvious to one of ordinary skill in the art to incorporate trenches in the pad of Sakihama thereby having portions of the pad not covered smaller

than the second thickness of the strip in order to provide higher adhesive strength as taught by Wu (Col. 2, Lines 3-7)

12. With respect to the intended use limitation of claim 3 that a conductive strip forms a supply network, the prior art forms the same structure as claimed and is thus capable of performing the intended use. As such, the intended use does not patentability distinguish the claimed invention. See e.g. *Ex parte Masham*, 2 USPQ2d 1647 (1987) (the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations).

13. With respect to the product by process limitation of claims 6 and 7 that each contact pad is "formed of a conductive layer... laid on the insulating layer," the claim is unpatentable since the prior art (e.g. pads) forms the same structure as claimed. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

14. With respect to the selected dimensions of claim 8, applicant has not disclosed that the selected dimensions are for a particular unobvious purpose, produce an unexpected result², or are otherwise critical. As such the selected dimensions would

² Increase in size produces greater surface area

have been obvious to one of ordinary skill in the art, since it has been held that mere dimensional limitations are prima facie obvious absent a disclosure that the limitations are for a particular unobvious purpose, produce an unexpected result, or are otherwise critical. See, for example, *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955); *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976); *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984); *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

15. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakihama et al. (U.S. 6,522,021) and Wu et al. (U.S. 6,287,950) as applied to claim 1 and further in combination with Sahara (U.S. 2002/0063340).

15. Modified Sakihama does not disclose at least one strip forms a coil.

16. Sahara utilized at one strip forming a coil (25; Fig. 1).

17. It would have been obvious to one of ordinary skill in the art to incorporate a strip as a coil in order to provide high inductance to attain high frequency semiconductors as taught by Sahara (Par. 0023).

18. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakihama et al. (U.S. 6,522,021) and Wu et al. (U.S. 6,287,950) as applied to claim 1 and further in combination with Anand (U.S. 2001/0013657).

19. Modified Sakihama does not explicitly disclose that its pad may be made formed from aluminum.

20. However, Anand teaches aluminum as a conductive material for pads (Par. 0063).
21. Because aluminum is a known material for the use in pads as exemplified in Tong above, it would have been obvious to one of ordinary skill in the art to form the pad of Sahara with aluminum, since it has been held that the selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination. Sinclair & Carroll Co. v. Interchemical Corp., 325 U.S. 327, 65 USPQ 297 (1945). See M.P.E.P 2144.07

Response to Arguments

22. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection:

Conclusion

23. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES M. MITCHELL whose telephone number is (571)272-1931. The examiner can normally be reached on M-F 8:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mathew Landau can be reached on (571) 272-1731. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matthew C. Landau/
Supervisory Patent Examiner, Art
Unit 2813

February 12, 2010
/James M. Mitchell/
Examiner, Art Unit 2813

